

2014 Countywide Comprehensive Transportation Plan

Volume I

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**DRAFT
FINAL**



CONTRA COSTA
transportation
authority
1989 – 2014

Keeping Contra Costa Moving

TURN ON
HEADLIGHTS

Executive Summary

OVERVIEW

The Contra Costa Countywide Transportation Plan, or CTP, is the blueprint for Contra Costa's transportation system over the next 25 years. This long-range vision for transportation identifies the projects, programs, and policies that the Authority Board hopes to pursue. The CTP identifies goals for bringing together all modes of travel, networks and operators, to meet the diverse needs of Contra Costa.

By improving the transportation system, we can help to address the challenges that a growing population, more jobs, and more traffic will bring. The CTP lays out a vision for our transportation future, the goals and strategies for achieving that vision, and the future transportation investments needed to promote a growing economy, advance technological changes, protect the environment, and improve our quality of life.

CHALLENGES AHEAD

Census data shows that the population of Contra Costa grew from 804,000 in 1990 to just over one million residents in 2010, an increase of 30 percent over ~~twenty~~ 20 years. New forecasts for the region indicate that, while yearly population growth is slowing slightly, Contra Costa will still add another 289,000 residents by 2040, a 27 percent increase.

Unlike population, job growth is expected to speed up. Between 1990 and 2010, the number of jobs in Contra Costa grew by only 17 percent. We're expecting the growth in jobs to more than double to 35 percent, resulting in nearly half a million jobs by 2040.

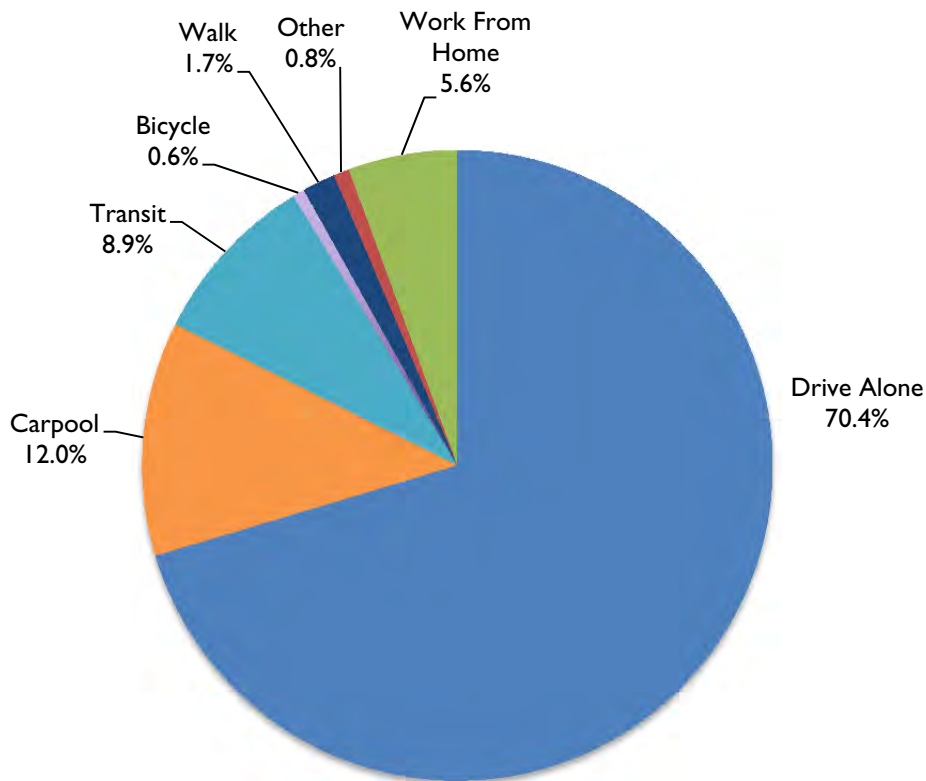
While both jobs and population will increase throughout Contra Costa, some areas of the county will grow faster than others. Population growth in West County, Central County and East County is expected to be the highest, at 29 percent each, followed by ~~the Southwest subarea-County~~ at 16 percent by 2040. Job growth in East County and Central County is expected to outpace other areas with increases of 40 percent and 37 percent, respectively, with the slowest rate of job growth found in Lamorinda subarea of Southwest County, with an expected increase of 25 percent by 2040.

How We Get to Work

Commuters have a variety of options for getting to work: driving alone, carpooling, taking transit, walking, or biking. Alternatively, in recent years many companies have begun to allow employees to telecommute from home.

Since 1980, the percentage of commuters who drive alone has remained steady at about 70 percent. Similarly, transit ridership has also held steady, at approximately 9 percent. Figure E-1 below shows the percentages of use by different modes for work trips ~~in-by~~ Contra Costa residents.

Figure E-1: Travel Modes, Share of Commute Trips, 2010

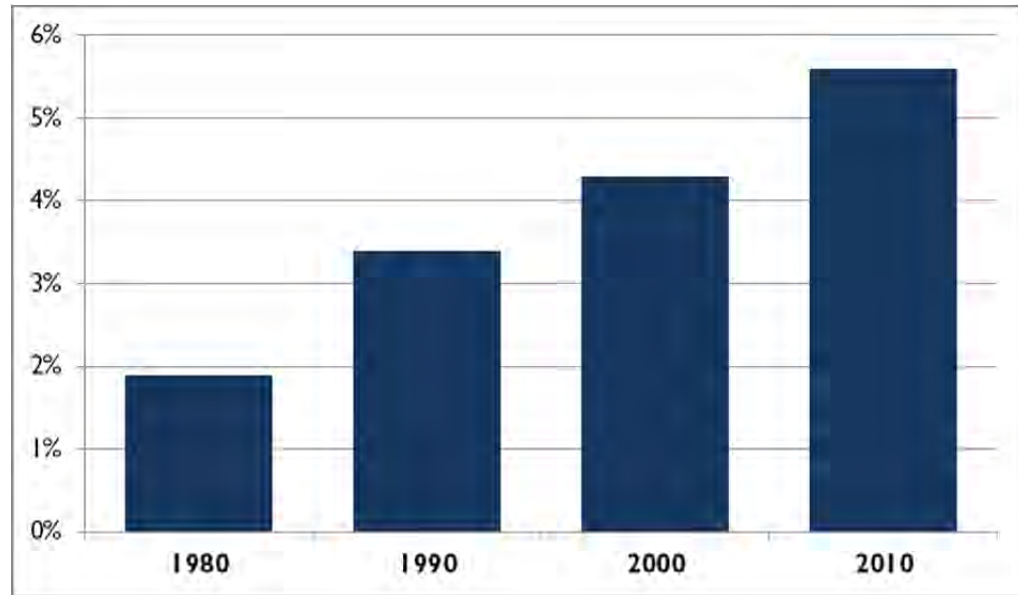


Source: U.S. Census Bureau, 2010.

What has changed most dramatically over the 30 years between 1980 and 2010 is the number of people who now indicate they work from home: the percentage of people who work from home has more than doubled, from 1.9 percent in 1980 to 5.6 percent in 2010, as shown in Figure E-2. Will that percentage continue to increase through 2040? And if so, could telecommuting reach levels of 10 to 20 percent? Higher participation rates for telecommuting will help alleviate future traffic congestion. Bicycle commuting also has increased by 20 percent in recent years, and the Authority, working with local jurisdictions, can do a lot to continue to facilitate this in the future.¹

¹ According to the U.S. Census Bureau, in 2000, 0.5 percent of commuters bicycled to work, and by 2010, 0.6 percent of commuters bicycled to work, a 20 percent increase over the ten year period.

Figure E-2: Work From Home, Share of Commute Trips, 1980-2010

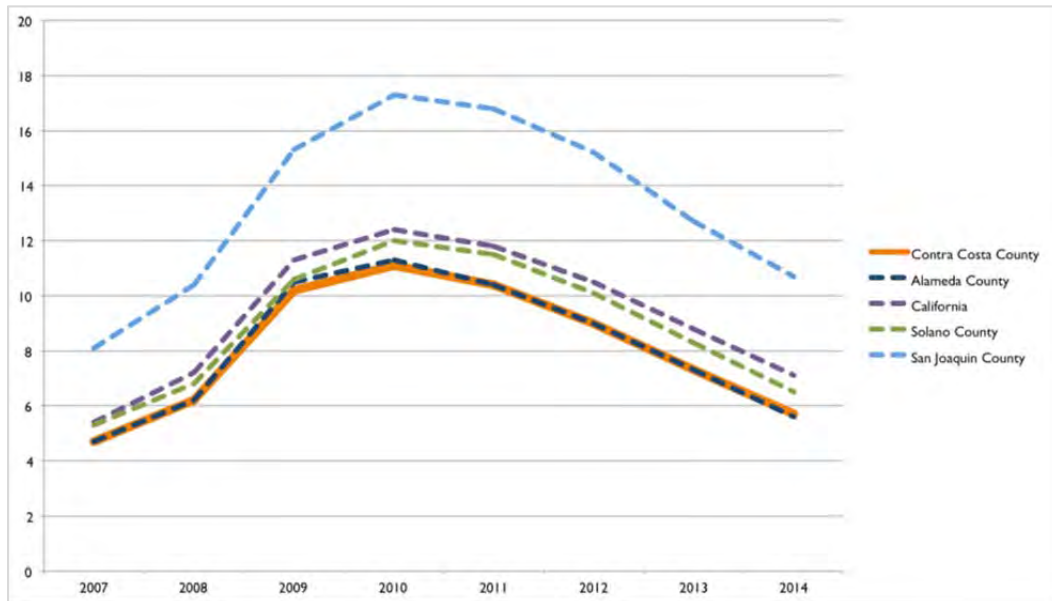


Source: U.S. Census Bureau, 2010.

The Economic Recovery

The so-called “Great Recession,” which began in 2007, resulted in higher unemployment rates, which in turn meant that fewer people were driving to work. Consequently, between 2007 and 2010, traffic growth in the Bay Region remained flat, and in Contra Costa even decreased somewhat. Measurements taken in 2010 indicated that traffic levels in many areas of Contra Costa had dropped to below the levels previously seen in 2000. At present, the economy is recovering from the recent recession. As shown in Figure E-3, since 2010, unemployment levels have been steadily dropping towards pre-recession levels.

Figure E-3: Unemployment Rate, 2007-2014



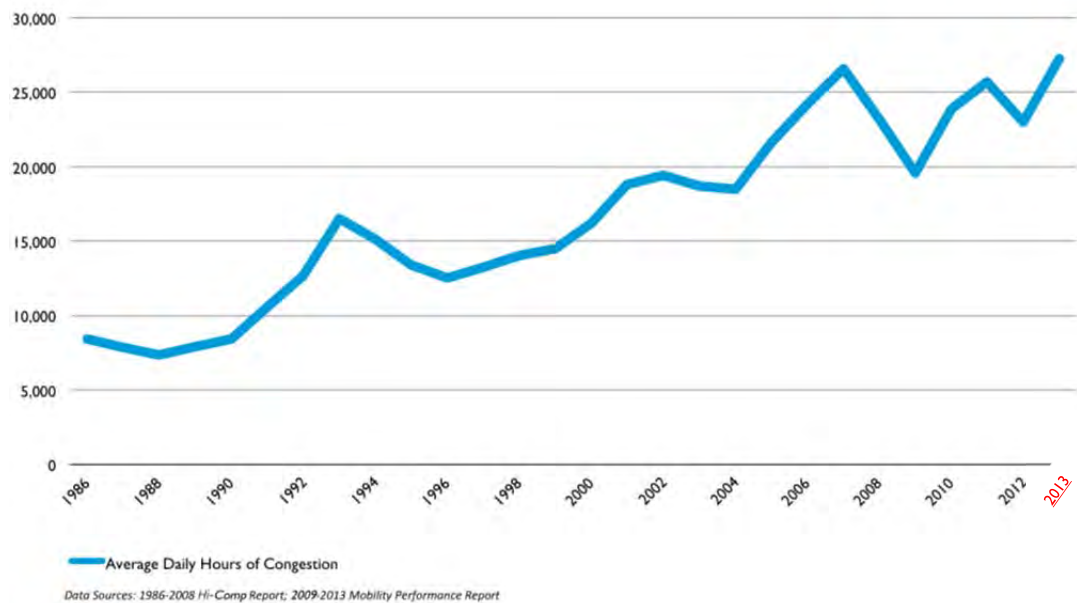
Source: California Employment Development Department, 2014, <http://www.edd.ca.gov/>.

What Does This Mean for Traffic?

The end of the Great Recession comes as welcome news for the economy and residents of the Bay Area. This may mean, however, more people on the road and on BART and buses, making for heavier traffic and more crowded commutes.

Although more residents may work from home, traffic congestion will remain a growing problem. People will continue to travel from home to work, school, and other destinations. As a result, we can expect past trends (shown in Figure E-4) to continue, with further increases in roadway traffic, and more hours spent on congested roadways.

Figure E-4: Average Daily Hours of Congestion, 1986-2013



Source: 1986-2008 Hi-Comp Report; 2009-2012 Mobility Performance Report; 2013 Vital Signs.

According to our forecasts, by 2040, traffic between East County and Central County will increase by 70 percent. Other corridors will experience significant traffic growth as well.

The good news is that we also expect more people to take transit such as BART or a bus, or switch to walking or bicycling. The total number of miles driven has been dropping over the last decade, a trend that pre-dates the Great Recession. And there is more good news. California has always been a front-runner in low-emissions vehicle technology. As progress continues and more hybrid and electric cars join the fleet, harmful emissions from tomorrow's vehicles will be reduced to a small fraction of what they are today.

We also need to look no farther than our own backyard to see what further innovations lie ahead. In Mountain View, the autonomous Google® car is being perfected, and here in Contra Costa we have ~~volunteered to have our streets and roads serve as~~ established the nation's largest secure test-bed for ~~a federally-funded pilot program intended to accelerate the deployment of~~ connected vehicles—autonomous vehicles (CAVs).

WHO WE ARE

The Contra Costa Transportation Authority (CCTA) is a public agency formed by Contra Costa voters in 1988 to manage the county's transportation sales tax program and to do countywide transportation planning. CCTA is responsible for maintaining and improving the county's transportation system by planning, funding, and delivering critical transportation infrastructure projects and programs that connect our communities, foster a strong economy, promote a healthy environment, and safely and efficiently get people where they need to go. We work to improve our quality of life and help make our community great – now and in the future. The Authority is also the county's designated Congestion Management Agency, responsible for putting programs in place to keep traffic levels manageable.

The Authority's Mission

The Authority's mission is to deliver a comprehensive transportation system that enhances mobility and accessibility, while promoting a healthy environment and strong economy by:

- Leading a collaborative decision-making process with local, regional and state agencies;
- Establishing partnerships to effectively deliver transportation projects and programs;
- Facilitating a countywide dialogue on growth and congestion that discloses and seeks to mitigate the impacts of development while respecting the responsibilities of local jurisdictions;
- Taking into account the diverse character of Contra Costa communities.

The Authority is responsible for ensuring the completion of a wide variety of projects that were included in the original Measure C Expenditure Plan and the Measure J Expenditure Plan. Some major projects, primarily on State highways, are being developed directly by the Authority. Others are administered by cities, the county, Caltrans, or transit districts with funds provided by the Authority.

The Countywide Transportation Plan (CTP) – our 25-year transportation blueprint – is prepared every five years. The CTP establishes a comprehensive list of transportation projects for submittal to the Metropolitan Transportation Commission for possible inclusion in the Regional Transportation Plan.

The Authority also prepares a Strategic Plan, which is updated approximately every two years. The Strategic Plan allocates funds to individual projects in specific years over the upcoming seven year period. For projects that have local proponents (city, county, transit districts or other special districts), the Authority enters into cooperative agreements, approves fund appropriation resolutions and reimburses project proponents upon satisfactory billing for completion of the particular phase of work. For projects on the State Highway System, the Authority works cooperatively with Caltrans by retaining consultants and managing single or multiple phases of the work. The Authority also reviews progress on projects funded by Measure C and/or Measure J through a program management system.

CCTA'S VISION, GOALS, AND STRATEGIES

The following vision encapsulates the role the transportation system will play in supporting the people, economy, and environment of Contra Costa:

Strive to preserve and enhance the quality of life of local communities by promoting a healthy environment and strong economy to benefit all people and areas of Contra Costa, through (1) a balanced, safe, and efficient transportation network, (2) cooperative planning, and (3) growth management. The transportation network should integrate all modes of transportation to meet the diverse needs of Contra Costa.

To achieve this vision, the Authority has also identified five goals and corresponding strategies for the 2014 CTP.

Goals

1. Support the efficient, safe, and reliable movement of people and goods using all available travel modes;
2. Manage growth to sustain Contra Costa's economy, preserve its environment and support its communities;
3. Expand safe, convenient and affordable alternatives to the single-occupant vehicle;
4. Maintain the transportation system; and

5. Continue to invest wisely to maximize the benefits of available funding.

ISSUES & OPPORTUNITIES

The purpose of the 2014 CTP is to identify and implement specific actions and strategies that support our shared goal of safe, strong, and efficient transportation networks that improve the quality of life of Contra Costa residents. As we work together to develop solutions for our county, we also need to be mindful of new challenges and opportunities that may affect the CTP's goals.

Funding

Funding is critical to meeting the stated goals of the CTP and helping Contra Costa remain one of the most desirable places to live and work in the Bay Area. In addition to examining how we can most responsibly and efficiently use existing funding sources — such as traditional State and federal funds, Cap and Trade funds, OneBayArea Grants, and voter-approved Measure J funds — we also need to consider new sources of revenue. Open road tolling, congestion pricing at gateways or in central business districts, and pricing based on parking demand are a few potential sources.

Changing Travel Choices

As noted earlier, the number of vehicle miles traveled (~~VMT~~) per capita has been decreasing over the last decade. This drop is driven primarily by the changing habits of the “millennials,” the generation born after 1982. Millennials are driving, and even getting a license to drive, less frequently. Partly, they are responding to the high cost of owning and operating a vehicle, especially with the significant student debt many millennials carry. And partly it results from changes in where millennials — and many retiring Baby Boomers — are choosing to live, namely in close-in, walkable neighborhoods. This change does not, however, seem related to unemployment. ~~Both~~ States with higher and lower unemployment rates have seen drops in ~~VMT~~vehicle miles traveled as well.

If this recent trend continues, it would mean that forecasts of increased congestion may be excessively dire. But even so, we expect that, in many locations, we will see more delays on our roads, especially where people must go farther to get to work.

Improving Mobility for the Next Generation

The Authority has long been concerned with how we can continue to maintain and improve our roads, freeways, transit, and pedestrian and bicycle facilities in ways that sustain our economy, our environment and our quality of life.

Making new improvements, while maintaining what we have, is a prominent issue for the 2014 CTP as the Authority addresses new State legislation such as SB 375. This legislation supports the development of job centers and neighborhoods that are easier to get to by transit and safe and convenient to walk or bicycle in. By investing in transportation improvements that are supportive of the Sustainable Communities Strategy (required under SB 375 and incorporated into Plan Bay Area), the Authority can foster changes that will reduce the need for long commutes to work, shopping and other destinations.

We also need to ensure that our roads and transit systems are resilient: can we continue to get around after an earthquake? Will increased frequency of storm surges harm our rail lines and roadways?

Maintaining Local Streets and Roads

Critical to the county's transportation network, Contra Costa's local streets and roads are aging and continue to face growing demands. Local streets and roads must accommodate heavier vehicles, more traffic, and multiple transportation modes. According to the 2014 California Statewide Local Streets and Roads Needs Assessment report, Contra Costa's average pavement condition of local streets and roads has worsened in the past decade and is now considered "at risk" and could fall into "poor" condition without adequate maintenance and repair.² Funding improvements to repair and maintain local streets and roads can help ensure Contra Costa's transportation network functions safely, smoothly, and reliably in the coming decades.

Using Technology

Over the last two centuries, technology has revolutionized how we move people and goods. From carriages to trains to bicycles and then cars and trucks, we have used technology to get where we want to go more quickly. That process is continuing. We are finding new technologies to help make travel and goods move

² California Local Streets and Roads Needs Assessment, 2014 Update.
www.savecaliforniasstreets.org.

ment safer, more efficient, and more cost-effective while minimizing the impacts of travel on the environment.



As technology advances, it is shifting the ways that people access and use the transportation system; for example, real-time ridesharing is facilitated in Contra Costa by companies such as Carma, pictured above.

Improvements to automobiles, from shatterproof glass and anti-lock brakes to seat belts and air bags, have made them ~~safer and~~increasingly safer over the years. Several new technologies are on the horizon that have the potential to significantly improve auto safety. Collision warning and automatic braking, for example, which are already being incorporated into new cars, warn drivers if they approach other cars too closely and automatically slow the vehicle if the driver doesn't respond.

Another potential new improvement that could have a ~~significant-profound~~ impact, not just on safety but also on the efficiency of our roadways, is vehicle automation. If we can get cars to drive themselves, we stand to gain significant improvements in safety and efficiency. Connected ~~vehicles/automated~~autonomous vehicles (CV/AVs) could also have environmental benefits by ~~making travel more efficient~~significantly reducing fuel consumption and emissions. ~~To help~~

transition CV/AVs from a science-fiction dream to reality, in October 2014, the Authority initiated a testing project for self-driving cars at the Concord Naval Weapons Station. In partnership with the City of Concord, the Department of the Navy, and a number of automobile manufacturers, the Authority will help the auto industry's efforts to test and refine the technology, and tell us what changes to the roadway infrastructure and equipment will be needed to accommodate connected vehicles/autonomous vehicles. Many issues remain to be overcome, from setting up the protocols for communicating among cars to ensuring that their use doesn't worsen the environment for bicyclists, pedestrians, and transit users.

Deployment of new technologies has been used to reduce the negative effects of our modern transportation ~~network~~system has a long-standing record of success. Catalytic converters, more efficient engines, and other improvements such as lighter construction and better aerodynamics have helped reduce emissions of air pollutants from gasoline-powered vehicles to a small fraction of what they used to be. More recently, and the increased use~~emergence~~ of electric or hybrid--electric vehicles in the fleet promises to reduce greenhouse gas emissions ~~in our urban areas even further from automobiles.~~ (These reductions, however, may be offset by emissions from the power plants generating the need to increase electricity generation and the increased use of electric for these vehicles ~~will increase the need for charging infrastructure.~~)

~~Other technologies focusing on the roadway will also play a role.~~ Intelligent transportation systems, or ITS, can also benefit our transportation network by improving safety and efficiency, benefiting the environment by limiting the waste of fuel and reducing greenhouse gas emissions. ITS encompasses many techniques, including electronic toll collection (such as FasTrak in the Bay Area), ramp metering, traffic signal coordination, and traveler information systems, for freeways, arterials and transit systems. The I-80 Integrated Corridor Mobility (ICM) project, which incorporates these and other improvements, is expected to ~~lead to significantly increases in capacity on the~~improve freeway operations and safety.

The 2014 CTP considers how this evolving transportation technology should be incorporated into our transportation system, and what needs to be done to capitalize on the benefits offered by these innovations.

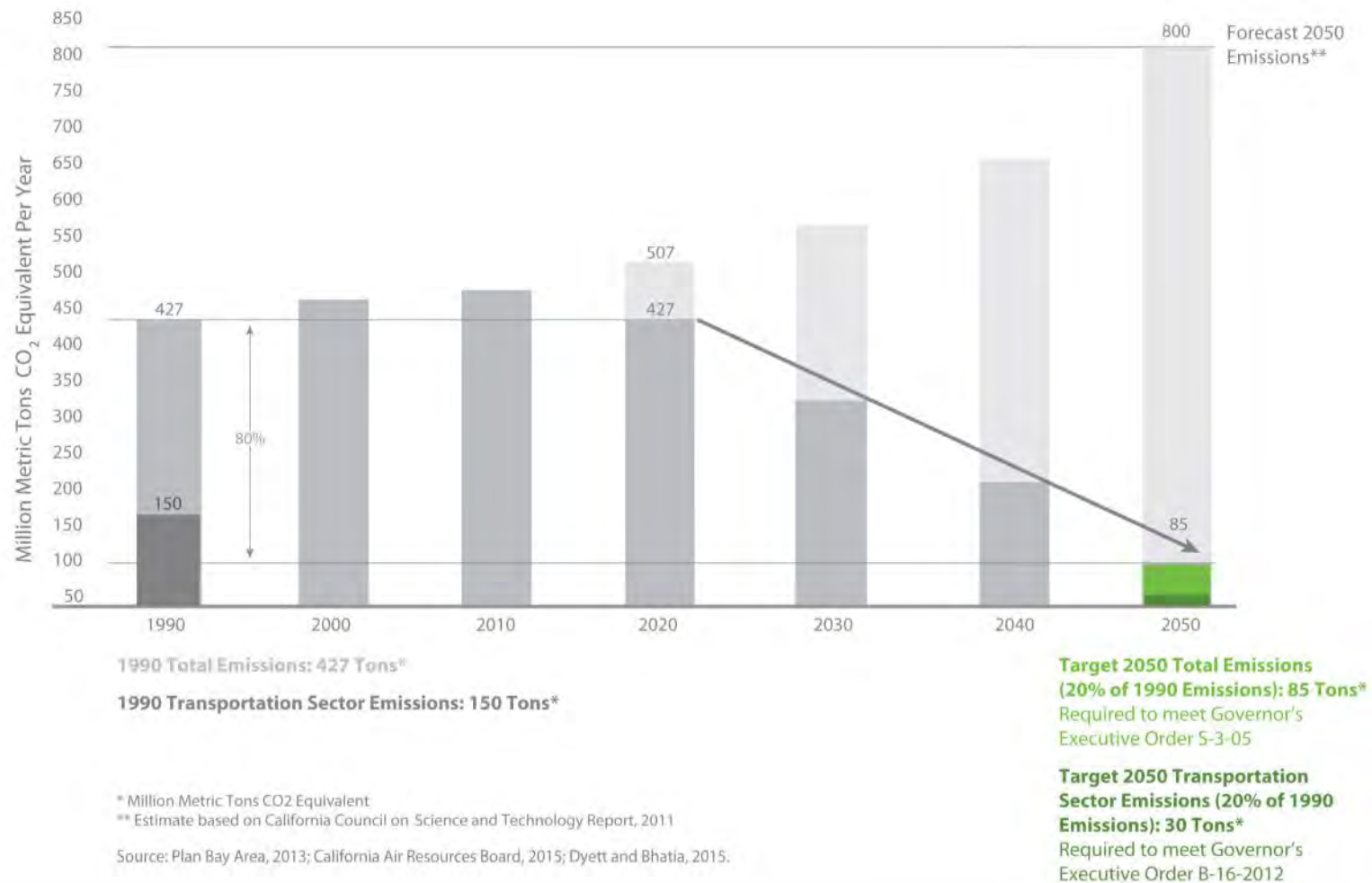


Technology advancements sometimes require changes to our infrastructure; for example, as electric vehicles are increasingly used across Contra Costa, more electric vehicle charging stations are needed to support them.

Managing the Effects of Greenhouse Gases

Climate change will have to be considered in our growth management plan due to the California Governor's orders [\(S-3-05 and B-16-2012\)](#) mandating an 80 percent reduction of greenhouse gases below 1990 levels by 2050, as shown in Figure E-5. Any efforts to increase the resiliency of our transportation system in light of future sea level rise will also need to take into account future vulnerabilities, such as baylands and access points near San Francisco Bay and the implications for infrastructure and land use. [This Plan includes mitigation measures for greenhouse gases carried forward from the 2009 update, which also were identified in the Draft SEIR as needed to ensure that the Plan supports the Governor's order.](#)

Figure E-5: Reaching-Achieving Statewide AB 32 GHG Reduction Targets and Executive Orders S-3-05 and B-16-2012



ASSEMBLY BILL 32 AND SENATE BILL 375

The passage of Assembly Bill (AB) 32 in 2006 set the stage for transitioning California to a low-carbon fuels future. It required a 15 percent reduction in greenhouse gas (GHG) emissions by 2020 – bringing emissions levels back to 1990 levels. Senate Bill (SB) 375, approved in 2008, addressed the component of AB 32 pertaining to emissions from cars and light trucks. As part of California’s efforts to reduce greenhouse gas (GHG) emissions from motor vehicle trips, SB 375 made three significant changes to State law:

1. It required the Metropolitan Transportation Commission (MTC) and other regional planning agencies to adopt a Sustainable Communities Strategy, or SCS, as part of its Regional Transportation Plan.
2. It linked the regional housing needs allocation, or RHNA, process to the regional transportation process while maintaining local authority over land use decisions.
3. It exempted transit priority projects and other residential or mixed-use projects from some of CEQA’s requirements.

The Sustainable Communities Strategy (SCS)

The SCS must identify an integrated land use and transportation system that together will meet the greenhouse gas emission reduction targets approved by the California Air Resources Board (CARB). This pattern of land uses and transportation facilities must also include enough development to accommodate the expected future population over both the next eight-five and the next 20 years as well as serve the transportation needs of the region.

If the SCS falls short of these greenhouse gas targets, regional agencies must develop an “alternative planning strategy” (APS) that meets the targets. The APS can include bolder ideas that may require additional funds or changes in law.

MTC and the Association of Bay Area Governments (ABAG) adopted their first SCS in 2013 as part of *Plan Bay Area*, the 2013 Bay Area Regional Transportation Plan (RTP). The SCS was able to meet the greenhouse gas reduction targets without requiring the preparation of an APS. The 2014 CTP Update supports a number of initiatives from Plan Bay Area, by providing resources, both directly and indirectly through partnerships, to local jurisdictions that seek to accommodate planned growth and reduce GHG emissions, as envisioned in Plan Bay Area. It

also is important to note that the regional pattern of development in Contra Costa has locally been managed under Measure J with a voter-approved Urban Limit Line and Growth Management Program – an initiative put in place before the SCS strategy was enacted.

Neither the SCS nor the APS will supersede a city's or county's general plan or other planning policies or authorities. ~~N~~nor must a local agency's planning policies be consistent with either strategy.

Housing Needs

SB 375 requires that the allocations of regional housing needs that ABAG prepares must be consistent with the development pattern adopted in the SCS and the schedule of the RTP process. This Plan and the SEIR use ABAG's *Projections 2013* for the countywide computer modeling and the impact analysis of the CTP's goals and strategies and the proposed projects and programs for transportation presented in detail in Volume 3 and summarized in this volume. Local governments will now need to update their housing elements within three years of the adoption of the SCS to be consistent with ABAG housing needs allocations.

Changes to the California Environmental Quality Act (CEQA) Exemptions

SB 375 streamlines CEQA review for two types of projects: residential or mixed-use projects, and "transit priority projects". If a residential or mixed-use project conforms to the SCS, its CEQA review does not have to ~~cover~~address growth-inducing impacts or cover either project-specific or cumulative impacts dealing with climate change. Transit priority projects that meet certain criteria can qualify for either a full CEQA exemption or a streamlined environmental assessment.

Senate Bill 743, which the State Legislature passed in 2013, made changes to the CEQA Guidelines to reduce the scope of analysis required for projects in "transit priority areas." More significantly, under SB 743, lead agencies could no longer find a level-of-service (LOS) violation to be a significant impact. In addition, the Office of Planning and Research, which is developing these changes to the Guidelines, is proposing to apply this change to the whole state and to substitute use changes in vehicle miles traveled for LOS in findings of significance. The Authority will review its *Technical Procedures and Implementation Guide* to respond to these changes to the CEQA Guidelines.

Implementing *Plan Bay Area*

As discussed earlier, *Plan Bay Area* is the Bay Area's long-term transportation, land use, and housing strategy through the year 2040. Adopted in 2013, it includes the Bay Area's Regional Transportation Plan and Sustainable Communities Strategy. *Plan Bay Area* was created by MTC and ABAG in response to SB 375. *Plan Bay Area* envisioned that implementation details would be taken up in partnership with transportation planning agencies and local jurisdictions. As such, the 2014 CTP addresses how elements included in *Plan Bay Area* fit into our vision for Contra Costa.

Elements of *Plan Bay Area* that are reflected in this CTP include:

- Priority Development Areas (PDAs);
- Use of California Cap and Trade funds;
- Other initiatives, including those for freeway performance, carpooling and vanpooling, smart driving strategies, streamlining the environmental review process, goods movement, and industrial lands inventories;
- The draft framework for MTC's Economic Prosperity Plan (publication forthcoming), which removes barriers for the disadvantaged and discusses the unresolved regional issues of mobility and equity; and
- Complete Streets, which serve all modes, and reasonable accommodations for all modes. ~~and~~

The Authority's travel demand forecasting model incorporates ~~Incorporation of~~ *Plan Bay Area's* land use forecasts (*Projections 2013*) ~~for the Authority's travel demand forecasting model.~~ ABAG's development of a monitoring "dashboard" will make it easier for local jurisdictions and the Authority to track trends in where new housing is located and compare them with the projections.

COOPERATIVE PLANNING

The 2014 CTP relies on collaboration with and between our partners, both at the countywide and regional levels. As a critical component of the countywide transportation planning process, each of the county's five Regional Transportation Planning Committees ~~(RTPCs)~~ creates an Action Plan, which identifies a complete list of actions to be completed as a result of the Action Plan. The 2014

Action Plans are unique in the sense that they focus on additional consideration of multimodal transit options including pedestrian and bicycling facility improvements and changes.

The 2014 updates of the Action Plans also demonstrate an increased concern for intra-regional routes and the impact of traffic diverting from inter-regional routes, increased support for freeway management strategies, and recognition of BART and freeway management as important inter-regional strategies. The Growth Management Program (GMP), which is Contra Costa's program to enforce collaborative transportation and land use planning, began a new stage when Measure J passed in 2009. With the implementation of Measure J, the GMP remains in effect through 2034.

Role of Action Plans in Identifying and Evaluating New Projects

As part of the Action Plan planning process, each [Regional Transportation Planning Committee](#) identified projects and programs in the form of actions to be included in the Action Plan for the Routes of Regional Significance. The 2014 Action Plans used the 2009 Action Plans as a base, with new actions and Regional Routes of Significance identified through discussion, collaboration, and review by each committee. Each Action Plan states its vision, goals, and policies; designates Routes of Regional Significance; sets objectives for these routes; and presents specific actions to achieve these objectives. The actions are listed on both a route-by-route and a regional scale, and aim to support the transportation objectives as specified by each [Regional Transportation Planning Committee](#). Figure E-7 shows the Action Plan approval process.

The Growth Management Program-(GMP)

The [Growth Management Program](#) will continue to provide cooperative planning on a countywide basis, as mandated by Measure J. So far, the [Growth Management Program](#) has vastly improved interjurisdictional communications regarding transportation and land use issues. By working with the cities and towns to manage growth, the Authority has facilitated creation of a regional mitigation program that has generated more than \$250 million in new revenues for regional transportation projects. The [Growth Management Program](#) will continue to be implemented in accordance with the requirements of Measure J through 2034. As shown in Figure E-6, the Measure J [Growth Management Program](#) has seven components that local jurisdictions must implement to maintain compliance with the [GMP program](#), and receive funding for local streets and roads in return. [As](#)

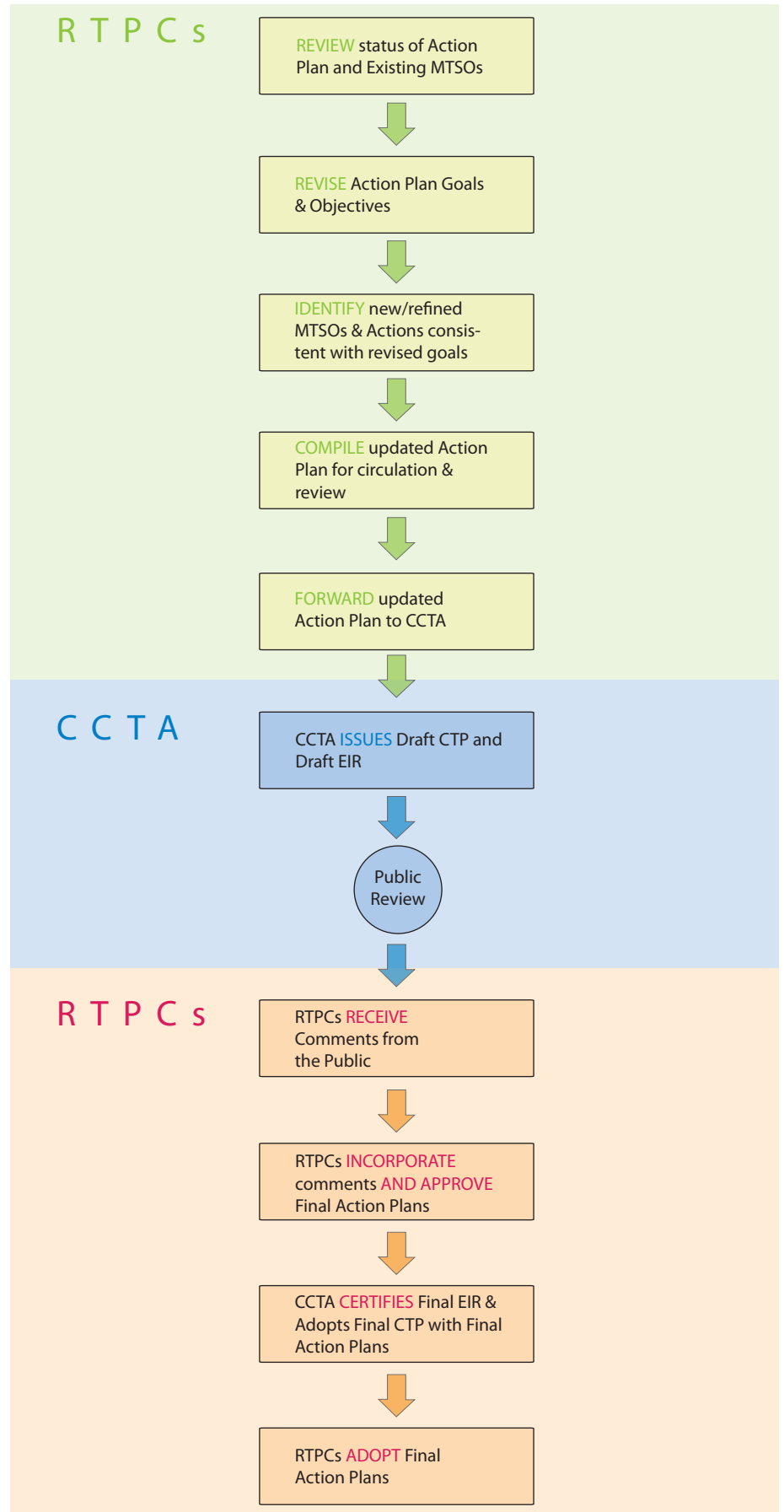
outlined in Chapter 4, refinements to the Growth Management Program will be reviewed and updated as necessary to comply with recent legislation.

Figure E-6: The Measure J Growth Management Program



Figure E-7: Action Plan Development and Approval Process

Action Plan Process Update



IMPLEMENTING THE PLAN

The 2014 CTP will play an important role in shaping our transportation policy and investment decisions. But how will the Plan be carried out? The Authority will need to work with its stakeholders ~~many agencies~~ to fund and prioritize the programs and projects that will work towards achieving its goals. The CTP outlines the strategies, the partnerships, and the guidelines essential for a smooth transition from concept to reality, building on lessons learned since the first CTP was prepared in 1995.

~~Detailed implementation tasks fall under the following seven broad categories:~~

- ~~▪ Implement Measure J funding programs~~
- ~~— Plan for Contra Costa's transportation future~~
- ~~▪ Support growth management program~~
- ~~▪ Develop transportation improvements~~
- ~~▪ Improve systems management~~
- ~~▪ Build and maintain partnerships~~
- ~~▪ Fund transportation improvements~~

The 2014 CTP represents the Authority's long-term plan for achieving a healthy environment and a strong economy that benefits all people and areas of Contra Costa through investment in our transportation system, cooperative planning and growth management. Working with its partner agencies, the Authority will apply these strategies outlined in the 2014 CTP to achieve the vision for Contra Costa's future.

FUNDING OVERVIEW

Over the life of Measure J, the Authority anticipates total revenues of \$2.7 billion (~~escalated Year-of Expenditure~~ dollars) from the one-half percent sales tax. Of these, about 58 percent, or \$1.56 billion, is dedicated to programs such as local streets and roads, bus operations, and Transportation for Livable Communities. The remaining 42 percent, or \$1.14 billion, goes to specific transportation projects.

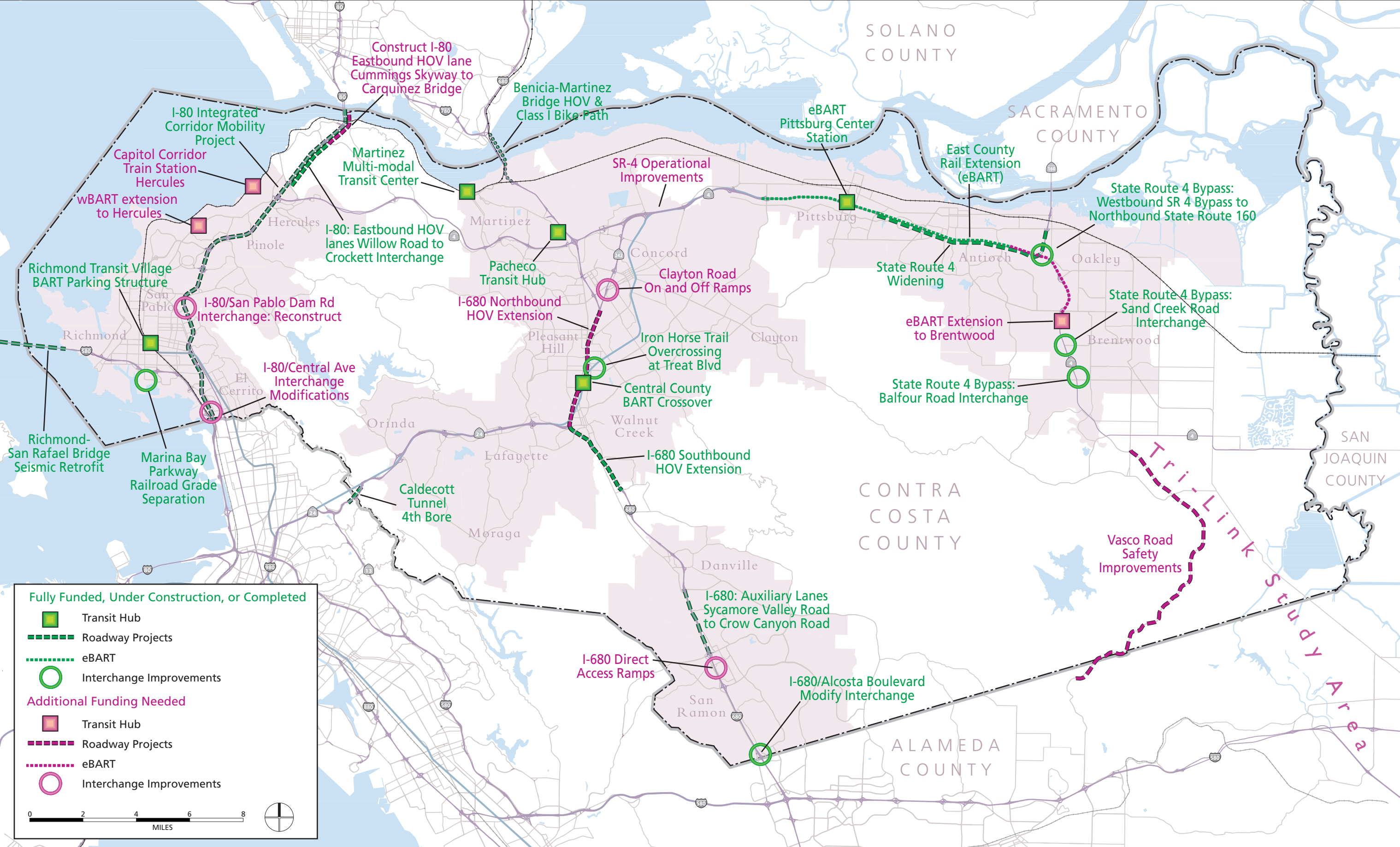
Measure C (1988-2004) had a different project/program split. Of the \$1.1 billion generated by Measure C, specific transportation projects received 60 percent of total revenues, while programs received 40 percent.

Measures C and J have made a substantial dent in funding needed for projects and programs, not only from the revenues they generated, but also the funding they attracted from other sources. As shown in the table below, total past and future project expenditures, including State and federal funds leveraged by Measures C and J, total \$6.5 billion.

TABLE E-1: MEASURES C AND J PAST AND FUTURE PROJECT EXPENDITURES

MEASURE C AND MEASURE J (Year of Expenditure Dollars x \$1,000)			
	PAST	FUTURE	TOTAL
Roadway (highways, arterials and maintenance)	\$754,989	\$1,030,733	\$1,785,722
Transit (bus, ferry, express bus, paratransit, commute alternatives)	\$433,548	\$737,643	\$1,171,192
Pedestrian & Bicycle (TLC, trails, safe transport for children, subregional needs)	\$11,152	\$322,812	\$333,964
Other	\$143,915	\$372,998	\$516,913
Subtotal	\$1,343,605	\$2,464,187	\$3,807,792
Leveraged funds on Measure C & J projects	\$1,721,000	\$970,000	\$2,691,000
TOTAL FUNDS	\$2,064,605	\$3,434,187	\$6,498,792

Figure E-8: Major Projects Funded Through Measure C and Measure J



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Volume 3 of the CTP contains a detailed listing of projects covering all modes of transport. Some of the major projects recently completed, under construction or planned for the future, are shown in Figure E-8. As shown in the table below, the total cost of proposed future projects is estimated at \$11.96 billion, of which only \$4.83.4 billion is funded through local, regional, State, and federal sources.

In addition to the projects, there are a number of transportation programs that are needed to preserve, protect, and operate our investments and to serve our travelers. The CTP estimates that approximately \$14.617.2 billion would be required to carry these programs through to 2040. This estimate may change depending upon the way that regional program needs are allocated to each county. Furthermore, the shortfall amount for programs is more difficult to estimate, given that in many cases, the program cost is already dictated by the availability of funding for each program. The following table summarizes the cost by program type.

TABLE E-2: TOTAL COSTS OF PROPOSED FUTURE PROJECTS

PROJECT TYPE	TOTAL COST (X \$1,000)	SHARE OF TOTAL
Arterial/Roadway	\$1,954,075	16.8%
Bicycle/Pedestrian/SR2S/TLC	\$579,159	5.0%
Transit	\$5,072,089	43.7%
Freeway/Expressway/Interchanges	\$3,875,997	33.4%
Intermodal/Park-and-Ride	\$131,854	1.1%
TOTAL COST	\$11,613,174	100.0%

TABLE E-2: TOTAL COSTS OF PROPOSED FUTURE PROJECTS (CONSTANT 2014 DOLLARS)

PROJECT TYPE	TOTAL COST (X \$1,000)	SHARE OF TOTAL
Arterial/Roadway	\$2,300,000	19.3%
Bicycle/Pedestrian/SR2S/TLC	\$1,280,000	10.8%
Transit	\$4,390,000	37.0%
Freeway/Expressway/Interchanges	\$3,790,000	32.0%
Intermodal/Park-and-Ride	\$102,000	0.9%
TOTAL COST	\$11,872,000	100.0%

A major challenge facing the Authority is to prioritize this \$~~2628~~ billion in projects and programs and determine which should receive highest priority over the next 30 years. In addition, the Authority must seek new sources of funding to bridge an approximate \$~~6.88.4~~ billion funding gap for projects, and a potentially similar gap for programs. Through renewal of the sales tax measure, and by keeping a close eye on other funding opportunities that may present themselves, the Authority will continue working diligently to achieve Contra Costa's transportation vision for 2040.

TABLE E-3: TOTAL COSTS OF PROPOSED PROGRAMS

PROGRAM TYPE	TOTAL COST	
	(X \$1,000)	SHARE OF TOTAL
Arterial/Roadway	\$5,978,000	41.1%
Bicycle/Pedestrian	\$232,000	1.6%
Bus	\$1,419,000	9.7%
Freeway/Expressway/Interchanges	\$935,000	6.4%
Green Programs	\$500,000	3.4%
Innovation	\$100,000	0.7%
Paratransit	\$114,000	0.8%
Rail/Rapid Transit	\$5,229,000	35.9%
Safe Routes to Schools	\$23,000	0.2%
TDM	\$27,000	0.2%
TOTAL COST	\$14,557,000	100.0%

TABLE E-3: TOTAL COSTS OF PROPOSED FUTURE PROGRAMS (CONSTANT 2014 DOLLARS)

PROGRAM TYPE	TOTAL COST	
	(X \$1,000)	SHARE OF TOTAL
Arterial/Roadway	\$4,092,295	24.0%
Bicycle/Pedestrian	\$148,900	0.9%
Bus	\$3,742,900	21.9%
Freeway	\$596,000	3.5%
Innovation	\$100,000	0.6%
Paratransit	\$158,900	0.9%
Rail/Rapid Transit	\$8,174,800	47.9%
Safe Routes to School	\$32,600	0.2%
TDM	\$26,600	0.2%
TOTAL COST	\$17,073,000	100.0%